

4.2.2.2 North Puget Sound Booming Strategy Priority Tables

Table 4-2-1

Potential Spill Origin: NPS-A - Cherry Point – BP Facility			
BOOMING PRIORITY	STRATEGY NUMBER	MAP PAGE NUMBER	COMMENTS
1	NPS-16	4-57	Tide dependent
2	NPS-17	4-57	Tide dependent
3	NPS-11	4-56	
4	NPS-10	4-56	
5	NPS-9	4-56	
6	NPS-7	4-56	
7	NPS-8	4-56	
8	NPS-14	4-57	
9	NPS-15	4-57	
10	NPS-26	4-57	
11	NPS-18	4-57	
12	NPS-27	4-57	

Table 4-2-2

Potential Spill Origin: NPS-B Ferndale Refinery			
BOOMING PRIORITY	STRATEGY NUMBER	MAP PAGE NUMBER	COMMENTS
1	NPS-16	4-57	Tide dependent
2	NPS-17	4-57	Tide dependent
3	NPS-12	4-56	
4	NPS-13	4-56	
5	NPS-14	4-57	
6	NPS-15	4-57	
7	NPS-26	4-57	
8	NPS-18	4-57	
9	NPS-27	4-57	
10	NPS-28	4-57	
11	NPS-29	4-57	
12	NPS-11	4-56	
13	NPS-10	4-56	
14	NPS-9	4-56	
15	NPS-23	4-57	
16	NPS-24	4-57	

Table 4-2-3

Potential Spill Origin: NPS- C North of Matia/Lummi Islands			
BOOMING PRIORITY	STRATEGY NUMBER	MAP PAGE NUMBER	COMMENTS
1	NPS-23	4-57	
2	NPS-24	4-57	
3	NPS-76	4-60	
4	NPS-75	4-60	
5	NPS-16	4-57	
6	NPS-17	4-57	
7	NPS-26	4-57	
8	NPS-18	4-57	

Table 4-2-4

Potential Spill Origin: NPS-D Clark Island, SE corner			
BOOMING PRIORITY	STRATEGY NUMBER	MAP PAGE NUMBER	COMMENTS
1	NPS-76	4-60	
2	NPS-23	4-57	
3	NPS-24	4-57	
4	NPS-25	4-57	
5	NPS-16	4-57	
6	NPS-17	4-57	
7	NPS-33	4-58	

Table 4-2-5

Potential Spill Origin: NPS-E Nooksack River mouth			
BOOMING PRIORITY	STRATEGY NUMBER	MAP PAGE NUMBER	COMMENTS
1	NPS-34	4-58	
2	NPS-21	4-58	
3	NPS-22	4-58	
4	NPS-19	4-57	
5	NPS-28	4-57	
6	NPS-29	4-57	
7	NPS-20	4-58	
8	NPS-30	4-58	
9	NPS-31	4-58	
10	NPS-32	4-58	

Table 4-2-6

Potential Spill Origin: NPS-F Samish River mouth			
BOOMING PRIORITY	STRATEGY NUMBER	MAP PAGE NUMBER	COMMENTS
1	NPS-46	4-59	
2	NPS-47	4-59	
3	NPS-48	4-59	
4	NPS-45	4-59	
5	NPS-44	4-59	

Table 4-2-7

Potential Spill Origin: NPS-G March Point Refineries			
BOOMING PRIORITY	STRATEGY NUMBER	MAP PAGE NUMBER	COMMENTS
1	NPS-62	4-59	
2	NPS-61	4-59	
3	NPS-65	4-59	
4	NPS-66	4-59	
5	NPS-64	4-59	
6	NPS-63	4-59	
7	NPS-67	4-59	
8	NPS-68	4-59	
9	NPS-69	4-59	
10	NPS-70	4-59	
11	NPS-71	4-60	
12	NPS-72	4-60	
13	NPS-73	4-60	
14	NPS-74	4-60	
15	NPS-54	4-59	
16	NPS-53	4-59	
17	NPS-52	4-59	
18	NPS-51	4-59	
19	NPS-50	4-59	

Table 4-2-8

Potential Spill Origin: NPS-H Guemes Channel			
BOOMING PRIORITY	STRATEGY NUMBER	MAP PAGE NUMBER	COMMENTS
1	NPS-65	4-59	
2	NPS-66	4-59	
3	NPS-64	4-59	
4	NPS-63	4-59	
5	NPS-68	4-59	
6	NPS-71	4-60	
7	NPS-72	4-60	
8	NPS-73	4-60	
9	NPS-62	4-59	
10	NPS-61	4-59	
11	NPS-70	4-59	
12	NPS-69	4-59	
13	NPS-74	4-60	
14	NPS-75	4-60	
15	NPS-76	4-60	

Table 4-2-9

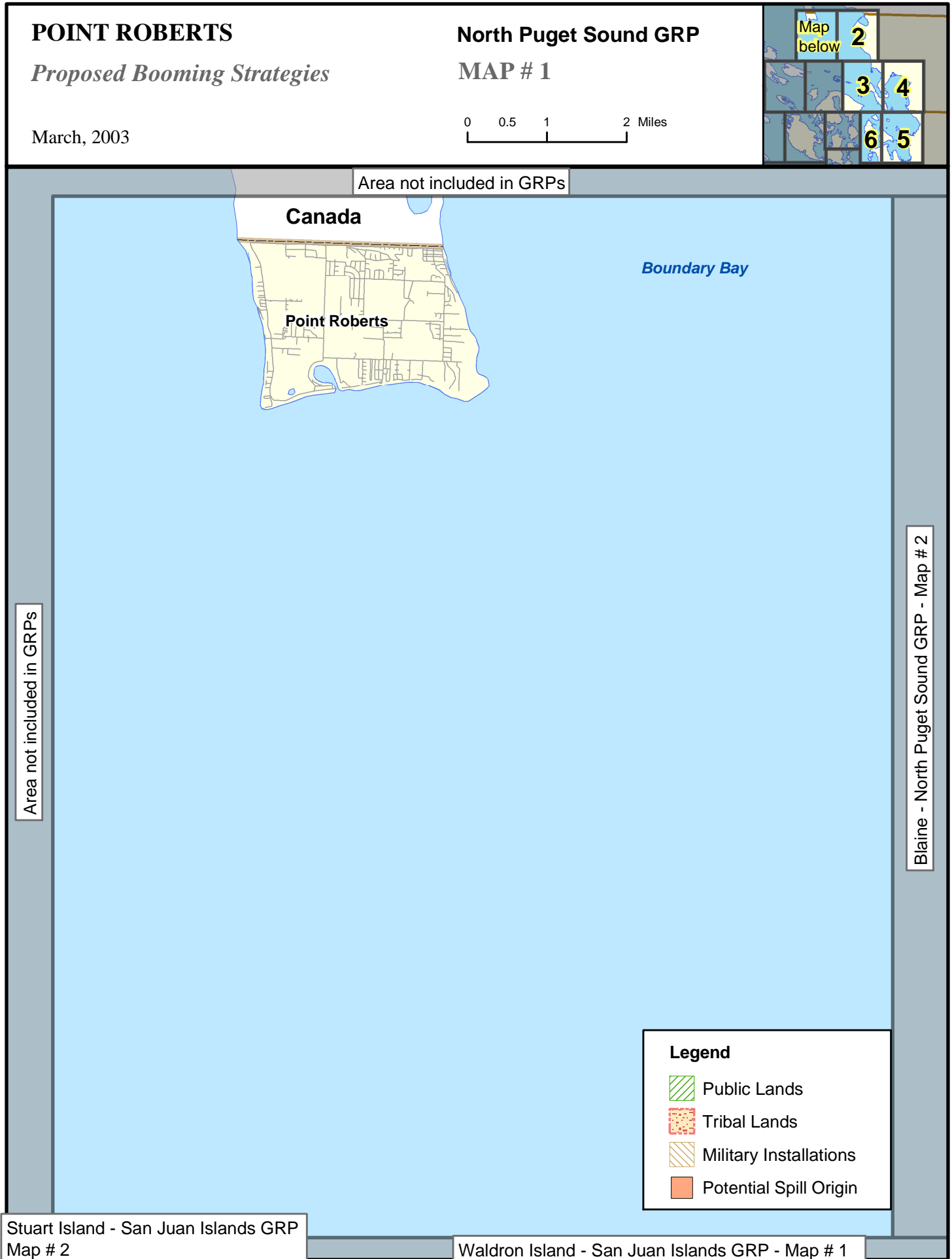
Potential Spill Origin: NPS-I Guemes Channel mouth			
BOOMING PRIORITY	STRATEGY NUMBER	MAP PAGE NUMBER	COMMENTS
1	NPS-72	4-60	
2	NPS-73	4-60	
3	NPS-71	4-60	
4	NPS-74	4-60	
5	NPS-75	4-60	
6	NPS-76	4-60	
7	NC-1	4-5	Refer to North Central Puget Sound GRP for NC strategies
8	NC-2	4-5	
9	NC-3	4-5	
10	NC-4	4-5	
11	NPS-70	4-59	
12	NPS-69	4-59	
13	NPS-33	4-58	
14	NPS-54	4-59	
15	NPS-53	4-59	

Table 4-2-10

Potential Spill Origin: NPS-J - James Island			
BOOMING PRIORITY	STRATEGY NUMBER	MAP PAGE NUMBER	COMMENTS
FALL AND WINTER			
1	JAM-54	4-19	Refer to San Juan Islands GRP for JAM and LOP strategies
2	JAM-53	4-19	
3	LOP-41	4-20	
4	NPS-72	4-60	
5	NPS-73	4-60	
6	NPS-74	4-60	
7	LOP-42	4-20	
8	LOP-43	4-20	
9	LOP-44	4-20	
SPRING AND SUMMER			
1	JAM-54	4-19	Refer to San Juan Islands GRP for JAM and LOP strategies
2	JAM-53	4-19	
3	NPS-72	4-60	
4	NPS-73	4-60	
5	NPS-74	4-60	
6	NC-1	4-5	Refer to North Central Puget Sound GRP for NC strategies
7	NC-2	4-5	
8	NC-3	4-5	
9	NC-4	4-5	
10	NPS-76	4-60	
11	NPS-75	4-60	
12	LOP-36	4-19	

Table 4-2-11

Potential Spill Origin: NPS-K Cypress Island, NW corner			
BOOMING PRIORITY	STRATEGY NUMBER	MAP PAGE NUMBER	COMMENTS
1	JAM-54	4-19	Refer to San Juan Islands GRP for JAM and ORC strategies
2	JAM-53	4-19	
3	ORC-28	4-19	
4	NPS-23	4-57	
5	NPS-24	4-57	
6	NPS-75	4-60	
7	NPS-76	4-60	

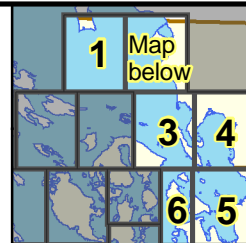


BLAINE*Proposed Booming Strategies*

March, 2003

North Puget Sound GRP**MAP # 2**

0 0.5 1 2 Miles



Area not included in GRPs

Canada

Area not included in GRPs

Legend

- Public Lands
- Tribal Lands
- Military Installations
- Potential Spill Origin

NPS-B

LUMMI BAY

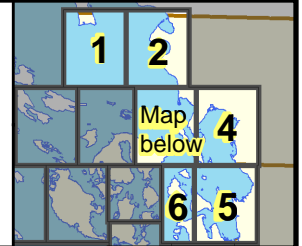
Proposed Booming Strategies

March, 2003

North Puget Sound GRP

MAP # 3

0 0.5 1 2 Miles



Blaine - North Puget Sound GRP - Map # 2

Waldron Island - San Juan Islands GRP - Map # 1

Bellingham Bay - North Puget Sound GRP - Map # 4



Legend

- Public Lands
- Tribal Lands
- Military Installations
- Potential Spill Origin

N Lopez Island - San Juan Islands GRP - Map # 5

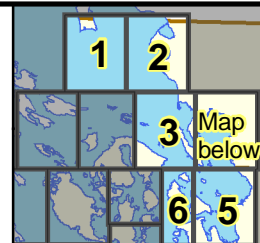
Fidalgo Head - North Puget Sound GRP - Map # 6

BELLINGHAM BAY*Proposed Booming Strategies*

March, 2003

North Puget Sound GRP**MAP # 4**

0 0.5 1 2 Miles



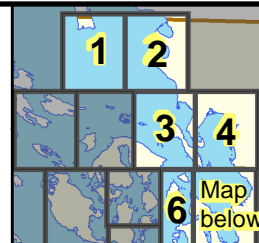
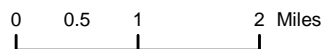
PADILLA BAY

Proposed Booming Strategies

March, 2003

North Puget Sound GRP

MAP # 5



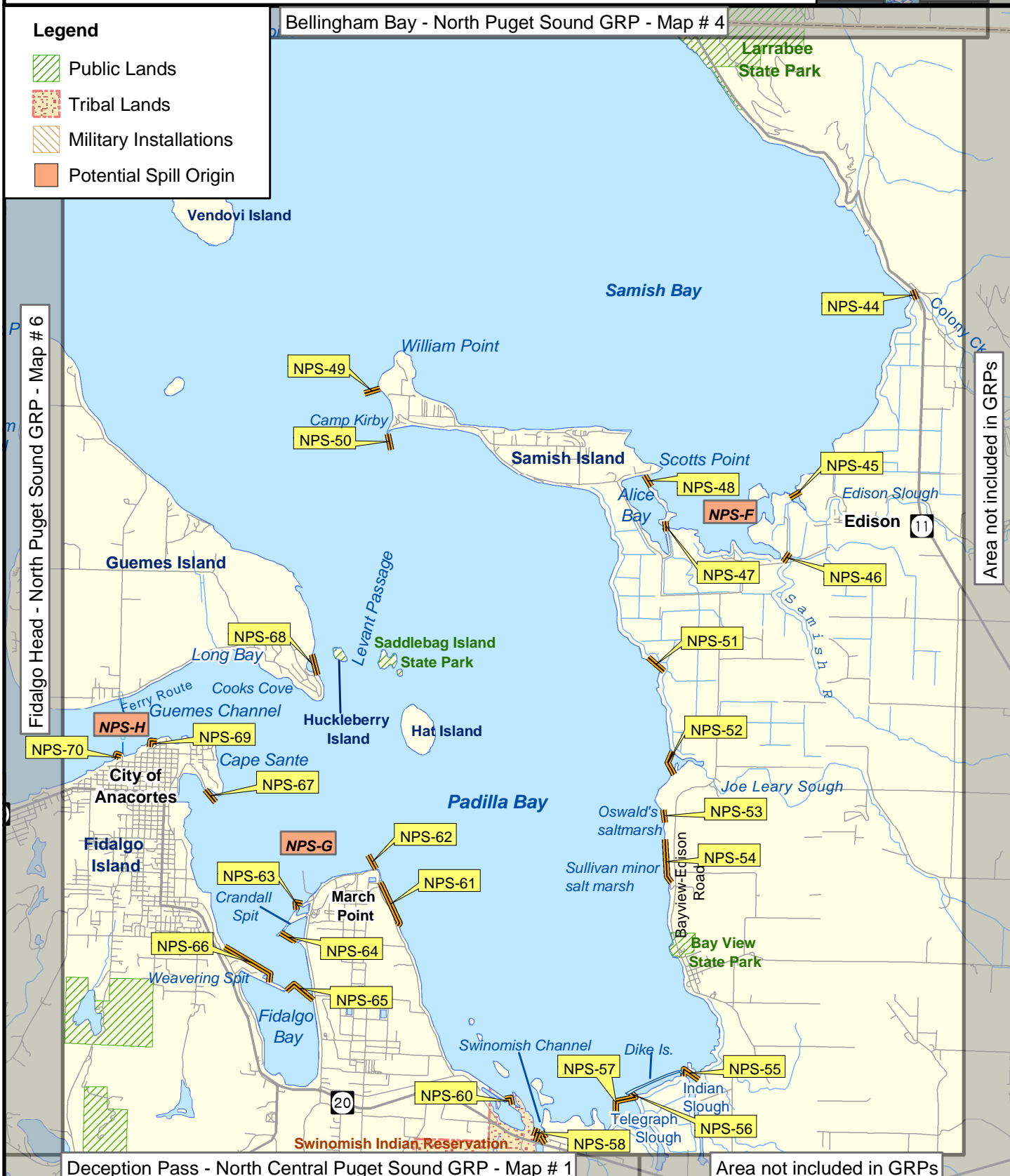
Legend

- Public Lands
- Tribal Lands
- Military Installations
- Potential Spill Origin

Bellingham Bay - North Puget Sound GRP - Map # 4

Fidalgo Head - North Puget Sound GRP - Map # 6

Area not included in GRPs



Deception Pass - North Central Puget Sound GRP - Map # 1

Area not included in GRPs

FIDALGO HEAD

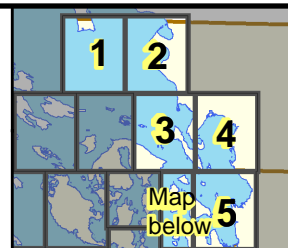
Proposed Booming Strategies

March, 2003

North Puget Sound GRP

MAP # 6

0 0.5 1 2 Miles



Legend

- Public Lands
- Tribal Lands
- Military Installations
- Potential Spill Origin



4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-1	Field visit 4/00	Drayton Harbor Entrance WHA0038 48°-59.525'N 122°-45.980'W	Collection - Keep oil off shoreline.	1000'	Deploy boom at an angle out from the Blaine small boat harbor breakwater to collect oil moving along the shore from the south.	Stage at Blaine Marina.	Boat access from Blaine or Semiahmoo Marina. Vehicle access from I-5 exit 276, go west on Marine Drive to marina, vac truck access on end of breakwater.	Extensive bird habitat (diving ducks, cormorants, loons), eelgrass, sand lance larvae spawning, herring and smelt spawning. Cancer crab, clam beds and seal haulouts.
NPS-2	Field visit 4/00	Drayton Harbor Entrance WHA0038 WHA0097 48°-59.476'N 122°-46.296'W	Exclusion/ Diversion/ Collection - Keep oil out of Drayton Harbor.	1600'	Deploy boom in a chevron formation out from the point next to the Semiahmoo Marina across to the Blaine small boat harbor breakwater. Collect at each end.	Stage at Blaine or Semiahmoo Marina.	Boat access from Blaine or Semiahmoo Marina. Vac truck access on either side.	Extensive bird habitat (diving ducks, cormorants, loons), eelgrass, sand lance larvae spawning, herring and smelt spawning. Cancer crab, clam beds and seal haulouts.
NPS-3		Dakota Creek WHA0047 48°-58.217'N 122°-43.735'W	Exclusion - Keep oil from moving up creek.	500'	Deploy boom at an angle across the creek on the east side of the bridge on Blaine Road. A small workboat will be needed to place the boom.	Stage along the side of the road at the bridge.	Boat access from Blaine or Semiahmoo Marina. Vehicle access from I-5 exit 274, go east on Blaine Road to site.	Archeological Site, eelgrass, herring spawning, salmonids, cancer crabs, shorebirds and seabirds.
NPS-4	Field visit 4/00	California Creek WHA0062 48°-57.725'N 122°-43.975'W	Exclusion/ Collection - Keep oil from moving up creek.	300'	Deploy boom at an angle across creek under the bridge on Drayton Harbor Road to collect on the southeast side of bridge. A small workboat will be needed to deploy boom.	Stage from road at bridge.	Boat access from Blaine or Semiahmoo Marina. Vehicle access from I-5 exit 274, go east and south on Blaine Road to Drayton Harbor Road, vac truck access from Drayton Harbor Road.	Archaeological sites, eelgrass, herring spawning, salmonids, cancer crabs, shorebirds, seabirds.

4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-5	Field visit 10/00	Semiahmoo Spit WHA0101 48°-58.930'N 122°-47.220'W	Collection - Protect shoreline habitat and keep oil out of Drayton Harbor.	1500'	Deploy boom at an angle out from beach about 1/4 mile north of Semiahmoo Park and anchor to collect oil moving around Birch Point into bay. Area subject to extreme adverse weather from northwest, deploy as much boom as possible. Area is shallow and becomes a mudflat at low tide.	Stage at Semiahmoo Park parking lot.	Boat access from Blaine or Semiahmoo Marina. Vehicle access from I-5 exit 274, go east and south on Blaine Road to Drayton Harbor Road, vac truck access at park.	Archeological site (middens & burial), clam beds, eelgrass, sand lance, smelt, herring spawning, waterfowl concentrations.
NPS-6	Field visit 10/00	Semiahmoo Spit WHA0102 48°-58.750'N 122°-47.450'W	Collection - Protect shoreline habitat and keep oil out of Drayton Harbor.	1500'	Deploy boom at an angle out from beach at Semiahmoo Park and anchor to collect oil moving around Birch Point into bay. Area subject to extreme adverse weather from northwest, deploy as much boom as possible.	Stage at Semiahmoo Park parking lot.	Boat access from Blaine or Semiahmoo Marina. Vehicle access from I-5 exit 274, go east and south on Blaine Road to Drayton Harbor Road, vac truck access at park.	Archeological site (middens & burial), clam beds, eelgrass, sand lance, smelt, herring spawning, waterfowl concentrations.
NPS-7	Field tested 10/00	Birch Bay Village Marina WHA0122 48°-55.920'N 122°-47.230'W	Exclusion/ Diversion/ Collection - Keep oil out of Birch Bay, or keep oil off shoreline on Birch Point.	2000'	Deploy 1000' of boom at an angle from the east side of the harbor entrance to collect oil moving into the bay from the southwest, or deploy the boom from the west side of the harbor entrance to collect oil moving around the bay from the east. Loop up to 1000' of boom inside the harbor entrance and anchor to shore on each side to contain collected oil and direct oil to vac truck access on east side.	Stage at the Birch Bay Village Marina.	Boat access from the Birch Bay Village Marina. Vehicle access from I-5 exit 270, go west to Birch Bay Drive and north to Birch Point Road. Vac truck access from marina parking lot. Gated entrance from Birch Point Road to Birch Bay Village, ask guard for directions to marina.	.

4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-8	Field tested 10/00	Terrell Creek WHA0135 48°-55.300'N 122°-44.725'W	Exclusion - Keep oil out of creek.	300'	Deploy boom at angle across creek mouth. Can be deployed from land.	Stage along Birch Bay Drive, next to creek mouth.	By boat from Tosco or BP docks. Vehicle access from Birch Bay Drive.	State Park - archaeological sites, eelgrass, herring spawning, major waterfowl site.
NPS-9	Field visit 10/00	Birch Bay State Park WHA0141 48°-54.410'N 122°-45.975'W	Diversion/ Collection - Protect shoreline habitat and state park area.	1000'	Deploy boom at an angle out from beach at state park to collect oil moving around Pt. Whitehorn past NPS-10 and NPS-11.	Stage at Birch Bay State Park.	By boat from Birch Bay Village Marina or ramp at state park. Vehicle access from I-5 exits 266 or 270, go west to Birch Bay Drive, vac truck assess from Birch Bay Drive.	State park, archeological sites, eelgrass, and herring spawning and major waterfowl site.
NPS-10	Field visit 10/00	Point Whitehorn (inside Birch Bay) WHA0143 48°-54.090'N 122°-46.420'W	Collection - Keep oil out of inner Birch Bay.	1000'	Deploy boom at an angle out from beach at state park boat ramp to collect oil moving around Pt. Whitehorn past NPS-11.	Stage at Birch Bay State Park.	By boat from Birch Bay Village Marina or ramp at state park. Vehicle access from I-5 exits 266 or 270, go west to Birch Bay Drive, vac truck assess at boat ramp, off Birch Bay Drive.	State park, archeological sites, eelgrass, and herring spawning and major waterfowl site.
NPS-11	Field tested 10/00	Point Whitehorn (inside Birch Bay) WHA0146 48°-53.700'N 122°-47.385'W	Diversion - Divert oil out into deeper water for collection at NPS-9 and NPS-10.	1000'	Deploy boom at an angle out from beach to deflect oil moving around Pt. Whitehorn into bay. If possible, set up skimmer at end of boom to collect.	Stage at Birch Bay State Park.	By boat from Birch Bay Village Marina. No vehicle access.	State park, archeological sites, eelgrass, and herring spawning and major waterfowl site.

4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-12	New strategy 5/01	Cherry Point, at the BP Pier WHA0161 48°-51.950'N 122°-45.160'W	Collection - Prevent oil from moving up beach.	1000'	Deploy boom from beach outward at an angle to collect oil moving along beach, primarily for oil from the south. Area subject to extreme adverse weather that may prevent deployment of boom.	Stage at BP pier.	By boat from BP pier. Vac truck access to beach at boat ramp at base of pier.	
NPS-13	Field tested 3/99	End of Gulf Road WHA0166 48°-51.380'N 122°-43.915'W	Collection - Prevent oil from moving up beach.	1000'	Deploy boom from beach outward at an angle to collect oil moving along beach. Area is a natural collection point, primarily for oil from the south. Area subject to extreme adverse weather that may prevent deployment of boom.	Stage at BP or Tosco piers.	By boat from BP or Tosco piers. Vehicle access from I-5 exit 266, go west on Grandview Road to Kickerville Road, go south to Alder Grove Road, go west to Powder Plant Road, and south to Gulf Road, vac truck access to beach from Gulf Road.	Herring Spawning area, sand lance larvae, smelt spawning and eelgrass.
NPS-14	Field visit 3/99	Neptune Beach WHA0179 48°-48.960'N 122°-42.515'W	Deflection/ Collection - Deflect oil out into open water or collect on beach.	3000'	If winds are from the east or south, deploy boom in three 1000' overlapping legs 100-200' apart to deflect oil out into open water for collection with skimmers. If winds are from the west or northwest, deploy 1000' of boom at an angle to collect oil moving along the beach.	Stage at BP or Tosco piers.	By boat from BP or Tosco piers, or from Bellingham or Sandy Point Marina. Vehicle access from I-5 exit 260, go west on Slater Road, vac truck access to beach from South Beach Way.	Archeology, eelgrass, herring spawning, sand lance larvae.

4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-15	Field visit 6/99	Sandy Point WHA0187 48°-47.215'N 122°-42.640'W	Deflection - Deflect oil out into open water.	1000'	Deploy boom from north shore of Sandy Point Shores Marina entrance out into straits and anchor to deflect oil into open water for collection with skimmers.	Stage at BP or Tosco piers, or at Sandy Point Marina.	By boat from BP or Tosco piers, or from Bellingham or Sandy Point Marina. No vehicle access.	Marina, marsh, eelgrass, waterfowl, herring spawning, sand lance larvae, cancer crab.
NPS-16	Field tested 8/99	Lummi Bay WHA0190 WHA0209 48°-47.245'N 122°-41.455'W	Exclusion - Prevent oil from entering north bay.	4500'	Deploy boom from Sandy Point to the seapond dike in Lummi Bay and anchor well. Area is shallow and becomes a mudflat at low tide. Strong winds may prevent deployment of boom.	Stage at Tosco or BP Pier at Cherry Point or CSCI moorage in Anacortes or Bellingham.	By boat from BP or Tosco piers, or from Bellingham, Anacortes, or Sandy Point Marina. Vehicle access to seapond dike road from Haxton Way.	Eelgrass, waterfowl, shorebirds, aquaculture, clam and oyster beds, cancer crabs and herring spawning.
NPS-17		Lummi Bay WHA0217 48°-46.215'N 122°-39.315'W	Exclusion - Prevent oil from entering east bay.	2000'	Deploy boom from seapond dike to shoreline to the south. Area is shallow and becomes a mudflat at low tide.	Stage at Tosco or BP Pier at Cherry Point or CSCI moorage in Anacortes or Bellingham.	By boat from BP or Tosco piers, or from Bellingham, Anacortes, or Sandy Point Marina. Vehicle access to seapond dike road from Haxton Way.	Eelgrass, waterfowl, shorebirds, aquaculture, clam and oyster beds, cancer crabs and herring spawning.
NPS-18		Gooseberry Point WHA0230 48°-43.920'N 122°-40.320'W	Diversion/ Collection - Keep oil from moving up or down Hale Passage.	1500'	Deploy boom from beach west of Lummi ferry terminal. If oil is from the north, use as diversion. If oil is from the south, use as collection. Notify Lummi Ferry terminal.	Stage at ferry terminal at Gooseberry Point.	By boat from Bellingham or Anacortes. Vehicle access, from I-5 exit 260, take Slater Road west to Haxton Way to ferry terminal.	Eelgrass beds, herring spawning, seabirds, archeology sites, clam beds.

4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-19	Field visit 4/00	Portage Spit WHA0351 48°-42.815'N 122°-39.175'W	Exclusion - Keep oil out of Portage Bay.	1500'	Deploy boom from Portage Point to Portage Island on the Hale Passage side of Portage Spit in a chevron formation. Water flow across the spit is primarily from Portage Bay to Hale Passage.	Stage at ferry terminal at Gooseberry Point.	By boat from Bellingham or Anacortes. Vehicle access, from I-5 exit 260, take Slater Road west to Haxton Way to Lummi View Drive.	Shellfish, clambeds, herring spawning grounds, Western Grebe, waterfowl and shorebird concentrations and eelgrass.
NPS-20	Field visit 4/00	Point Francis (Southwest corner of Portage Island) WHA0359 48°-41.695'N 122°-37.465'W	Diversion - Keep oil from moving up or down Hale Passage.	1000'	Deploy boom at an angle out from the southwest corner of Portage Island to deflect the oil out into Hale Passage.	Stage at ferry terminal at Gooseberry Point, or Bellingham Marina.	By boat from Bellingham or Anacortes. No vehicle access.	Eelgrass beds, herring spawning, clam beds, cancer crabs.
NPS-21		Portage Bay, (Hermosa Beach to Brant Island) WHA0368 48°-43.880'N 122°-37.900'W	Exclusion /Collection - Prevent oil from entering Portage Bay.	3000'	Deploy boom in chevron configuration from Hermosa Beach to Brant Island. Can collect with a vac truck at Hermosa Beach from Lummi Shore Road. Area is shallow and becomes a mudflat at low tide.	Stage at ferry terminal at Gooseberry Point, or Bellingham Marina.	By boat from Bellingham or Anacortes. Vehicle access, from I-5 exit 260, take Slater Road west to Haxton Way to Lummi Shore Drive.	Shellfish, clam beds, herring spawning grounds, western grebe, waterfowl & shorebird conc., eelgrass.
NPS-22		Portage Bay, (Brant Island to Brant Point) WHA0368 48°-43.450'N 122°-37.380'W	Exclusion - Prevent oil from entering Portage Bay.	3000'	Deploy boom in chevron configuration from Brant Island to Brant Point. Area is shallow and becomes a mudflat at low tide.	Stage at ferry terminal at Gooseberry Point, or Bellingham Marina.	By boat from Bellingham or Anacortes. Vehicle access, from I-5 exit 260, take Slater Road west to Haxton Way to Lummi Shore Drive.	Shellfish, clam beds, herring spawning grounds, western grebe, waterfowl & shorebird conc., eelgrass.

4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-23	New strategy 5/01	Legoe Bay (West side of Lummi Island) WHA0253 48°-42.935'N 122°-42.045'W	Exclusion - Keep oil out of Legoe Bay.	1200'	Deploy boom from Lovers Bluff to north shoreline of Legoe Bay. Deploy only if oil is coming from the south and outer Legoe Bay is being used to collect oil from the Village Point strategy.	Stage from Sandy Point Marina or Lummi Island ferry terminal.	By boat from Sandy Point Marina, Bellingham or Anacortes. Vehicle access by taking Lummi Island ferry and driving to Village Point on Legoe Bay Road.	
NPS-24	Field visit 3/99	Village Point (West side of Lummi Island) WHA0248 48°-43.005'N 122°-43.130'W	Collection - Keep oil from moving further up or down the straits.	1000'	Deploy boom from beach on Village Point out into straits and anchor. Boom could be tended with a vessel at tide changes to reposition angles. Oil can be collected from either direction.	Stage from Sandy Point Marina or Lummi Island ferry terminal.	By boat from Sandy Point Marina, Bellingham or Anacortes. Vehicle access by taking Lummi Island ferry and driving to Village Point on Legoe Bay Road.	Eelgrass, herring spawning, sand lance larvae.
NPS-25	New strategy 5/01	Point Megley (North tip of Lummi Island) WHA0238 48°-44.935'N 122°-42.955'W	Diversion/ Deflection - Keep oil off point and deflect oil back into open water.	1500'	Deploy boom from beach on Point Megley out into straits and anchor. Boom could be tended with a vessel at tide changes to reposition angles.	Stage from Sandy Point Marina or Lummi Island ferry terminal.	By boat from Sandy Point Marina, Bellingham, or Anacortes. No vehicle access.	Eelgrass, herring spawning, clam beds, seabirds, Murrelets, Pigeon Guillemots and Grebes.
NPS-26	Field visit 4/00	Lummi Point (East side of Lummi Island) WHA0231 48°-44.070'N 122°-41.350'W	Diversion/ Collection - Keep oil from moving up or down Hale Passage.	1000'	Deploy boom from beach on Lummi Point out into Hale Passage and anchor. Boom could be tended with a vessel at tide changes to reposition angles.	Stage at ferry terminal at Gooseberry Point, or at ferry terminal on Lummi Island.	By boat from Bellingham or Anacortes. Vehicle access by taking Lummi Island ferry and driving north on Nugent Road.	Eelgrass, herring spawning, clam beds, cancer crab, seabirds, murrelets, pigeon guillemots and grebes.

4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-27	Field visit 4/00	Lummi Island Ferry (Lummi Island side) WHA0338 48°-43.180'N 122°-40.845'W	Diversion/ Collection - Keep oil from moving up or down Hale Passage.	1000'	Deploy boom from beach south of the ferry terminal out into Hale Passage and anchor. Boom could be tended with a vessel at tide changes to reposition angles.	Stage at ferry terminal at Gooseberry Point, or at ferry terminal on Lummi Island.	By boat from Bellingham or Anacortes, vehicle access by ferry.	Eelgrass, herring spawning, clam beds, cancer crab, seabirds, murrelets, pigeon guillemots and grebes.
NPS-28	Field visit 4/00	Sunrise Cove (East side of Lummi Island) WHA0329 48°-41.905'N 122°-39.800'W	Exclusion - Keep oil out of Sunrise Cove.	1200'	Secure boom to shore at an angle across bay.	Stage at ferry terminal at Gooseberry Point, or at ferry terminal on Lummi Island.	By boat from Bellingham or Anacortes. Vehicle access by taking Lummi Island ferry and driving south on Nugent Road and east on Sunrise Road. Beach access through private property.	Eelgrass, clambeds and herring spawning grounds, Geoducks.
NPS-29	Field visit 4/00	Echo Point (East side of Lummi Island) WHA0328 48°-41.850'N 122°-39.580'W	Diversion/ Collection - Keep oil from moving up or down Hale Passage.	1000'	Deploy boom from beach on Echo Point out into Hale Passage and anchor. Boom could be tended with a vessel at tide changes to reposition angles.	Stage at ferry terminal at Gooseberry Point, or at ferry terminal on Lummi Island.	By boat from Bellingham or Anacortes. Vehicle access by taking Lummi Island ferry and driving south on Nugent Road and east on Sunrise Road. Beach access through private property.	Eelgrass, herring spawning, clam beds, cancer crab, seabirds, murrelets, pigeon guillemots and grebes.

4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-30	Field visit 4/00	Lummi Island Gravel Pit WHA0318 48°-40.785'N 122°-37.820'W	Diversion/ Collection - Keep oil from moving up or down Hale Passage.	1000'	Deploy boom from beach and pilings at gravel pit out into Hale Passage and anchor. Boom could be tended with a vessel at tide changes to reposition angles.	Stage at ferry terminal at Gooseberry Point, or at ferry terminal on Lummi Island.	By boat from Bellingham or Anacortes. Vehicle access by taking Lummi Island ferry and driving south on Nugent Road, east on Sunrise Road, and south on Seacrest Road. Beach access through private property.	Eelgrass, herring spawning, clam beds, cancer crab, seabirds, murrelets, pigeon guillemots and grebes.
NPS-31	New strategy 5/01	Smugglers Cove (East side of Lummi Island) WHA0317 48°-40.770'N 122°-37.730'W	Exclusion - Keep oil out of Smugglers Cove.	600'	Secure boom to shore across cove south of gravel pit.	Stage at ferry terminal at Gooseberry Point, or at ferry terminal on Lummi Island.	By boat from Bellingham or Anacortes. Vehicle access by taking Lummi Island ferry and driving south on Nugent Road, east on Sunrise Road, and south on Seacrest Road. Beach access through private property.	Eelgrass, herring spawning, clam beds, cancer crab, seabirds, murrelets, pigeon guillemots and grebes.
NPS-32	New strategy 5/01	Inati Bay (East side of Lummi Island) WHA0314 48°-40.370'N 122°-37.345'W	Exclusion - Keep oil out of Inati Bay.	1000'	Secure boom to shore at an angle across bay entrance.	Stage at ferry terminal at Gooseberry Point, or at ferry terminal on Lummi Island.	By boat from Bellingham or Anacortes. No vehicle access.	Eelgrass, herring spawning, clam beds, cancer crab, seabirds, murrelets, pigeon guillemots and grebes.

4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-33	New strategy 5/01	Cove on West side of Eliza Island WHA0293 48°-38.910'N 122°-35.040'W	Exclusion - Keep oil out of Cove.	1500'	Deploy boom from beach near the south end of the grass airstrip, south to the beach on the south end of the island.	Stage at ferry terminal at Gooseberry Point, or at the Bellingham Marina.	By boat from Bellingham or Anacortes. No vehicle access.	Eelgrass, herring spawning, clam beds, cancer crab, seabirds, murrelets, pigeon guillemots and grebes.
NPS-34	New strategy 5/01	Kwina Slough (south entrance) WHA0394 48°-46.420'N 122°-36.070'W	Exclusion - Keep oil out of slough and protect water intake.	300'	Deploy boom across south entrance to slough.	Stage at the Bellingham Marina.	By boat from Bellingham or Anacortes. No vehicle access.	Slough water intake.
NPS-35	Field visit 4/00	Whatcom Creek (Whatcom Waterway near the Roeder Avenue overpass) WHA0419 48°-45.170'N 122°-29.090'W	Exclusion - Keep oil from moving up into the mouth of Whatcom Creek.	300'	Deploy boom at an angle across the waterway under the Roeder Avenue/Chestnut Street bridge. A small workboat or skiff will be needed to deploy the boom.	Stage at the Marine Heritage Center parking lot, or at the Bellingham Marina (WHA0414).	By boat from the Bellingham Marina; vehicle access from I-5 Lakeway Drive exit, go west to Holly Street and follow to waterway.	Salmon stream, fish hatchery at Heritage Center.
NPS-36		Padden Creek WHA0431 48°-43.315'N 122°-30.485'W	Exclusion - Keep oil out of creek.	200'	Deploy boom across creek mouth at railroad trestle. Anchor to trestle pilings. Can be deployed from land.	Stage at parking lot for boat ramp on south end of trestle.	By boat from ramp on south end of trestle; vehicle access from I-5 Fairhaven exit, go west on Fairhaven Parkway to 12th St., go north to Harris Ave., west to 6th St. and north to site.	Tidal stream, wetland habitat.

4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-37	New strategy 5/01	Lagoon at the Port of Bellingham Marine Park WHA0433 48°-43.105'N 122°-31.010'W	Exclusion - Keep oil out of lagoon.	200'	Deploy boom in chevron configuration in front of gap in railroad trestle to lagoon. Anchor to railroad trestle. Flow through gap may be significant during tidal exchanges. Will need a small workboat to set the anchor at the apex of the chevron.	Stage at the Port of Bellingham Marine Park.	By boat from the ramp at Padden Creek; vehicle access from I-5 Fairhaven exit, go west on Fairhaven Parkway to 12th St., go north to Harris Ave. and west to site.	Habitat for waterfowl and fish.
NPS-38		Post Point Lagoon WHA0436 48°-42.615'N 122°-31.055'W	Exclusion - Keep oil out of lagoon.	200'	Deploy boom in chevron configuration in front of gap in railroad trestle to lagoon. Anchor to railroad trestle. Flow through gap may be significant during tidal exchanges. Will need a small workboat to set the anchor at the apex of the chevron.	Stage at the Padden Creek boat ramp.	By boat from the ramp at Padden Creek; no vehicle access.	Habitat for waterfowl and fish.
NPS-39		Chuckanut Creek WHA0449 48°-42.615'N 122°-31.055'W	Exclusion - Keep oil out of creek & North Chuckanut Bay.	400'	Deploy boom in chevron configuration in front of gap in railroad trestle to isolate bay and creek. Anchor to railroad trestle. Flow through gap may be significant during tidal exchanges.	Stage at the Padden Creek boat ramp.	By boat from the ramp at Padden Creek; no vehicle access.	Waterfowl, clam beds, cancer crabs.
NPS-40	New strategy 5/01	Second Cove North of Pleasant Bay WHA0460 48°-40.275'N 122°-29.510'W	Exclusion - Keep oil out of cove.	1200'	Deploy boom at a similar angle to NPS-41 to close off the cove.	Stage at Larrabee State Park.	By boat from the Larrabee State Park or the Padden Creek ramp. No vehicle access.	Waterfowl, clam beds, eelgrass beds.

4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-41	New strategy 5/01	First Cove North of Pleasant Bay WHA0461 48°-40.135'N 122°-29.735'W	Exclusion - Keep oil out of cove.	1300'	Deploy boom from Chuckanut Point to the opposite shore on the point to the northeast.	Stage at Larrabee State Park.	By boat from the Larrabee State Park or the Padden Creek ramp. No vehicle access.	Waterfowl, clam beds, cancer crabs.
NPS-42		Pleasant Bay WHA0462 48°-40.010'N 122°-30.140'W	Exclusion - Keep oil out of bay.	1300'	Deploy boom from Chuckanut Point to the opposite shore on the peninsula to Governors Point.	Stage at Larrabee State Park.	By boat from the Larrabee State Park or the Padden Creek ramp. No vehicle access.	Waterfowl, clam beds, cancer crabs.
NPS-43		Larrabee State Park, Wildcat Cove WHA0476 48°-39.170'N 122°-29.670'W	Exclusion - Protect State Park, keep oil out of Wildcat Cove.	800'	Deploy boom across the entrance of the cove.	Stage at Larrabee State Park.	By boat from the Larrabee State Park or the Padden Creek ramp. Vehicle access to the ramp from I-5 exit 250, go west to Chuckanut Drive (Hwy 11) and follow it south to the park.	State Park.
NPS-44	New strategy 5/01	Colony Creek SKA0215 48°-36.030'N 122°-25.550'W	Exclusion - Keep oil out of Colony Creek.	300'	Deploy boom across the entrance to the creek in front of the railroad trestle. Necessary only at high tide. Can be deployed from land.	Stage at the end of the dirt road on the south side of the creek mouth.	By boat from Larrabee State Park, boat access at high tide only. Vehicle access from I-5 exit 236, go west on Bow Hill Road to Chuckanut Drive (Hwy 11), go north to site.	Salmon stream, marsh habitat, waterfowl.

4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-45	Field visit 8/95	Edison Slough SKA0231 48°-33.865'N 122°-27.165'W	Exclusion - Keep oil out of Edison Slough.	300'	Deploy boom across entrance to slough. Can only be deployed at high tide, boat access only and area becomes a mudflat at low tide.	Stage in Edison or at the site for NPS-44.	By boat from the Larrabee State Park ramp or from Anacortes; no vehicle access.	Marsh, salmonids, waterfowl.
NPS-46	Field visit 8/95	Samish River SKA0241 48°-33.310'N 122°-27.310'W	Exclusion - Keep oil out of the Samish River.	300'	Deploy boom approx. 1000' down stream from bridge over Bayview-Edison Road. Necessary only on high flood tide.	Stage along dirt road off the northeast side of the bridge on the Bayview- Edison Road.	By boat from the Larrabee State Park ramp or from Anacortes; vehicle access from the staging area.	Marsh, salmonids, waterfowl.
NPS-47	New strategy 5/01	Alice Bay (South Entrance) SKA0248 48°-33.590'N 122°-29.195'W	Exclusion - Keep oil out of Alice Bay.	300'	Deploy boom across south entrance at the foot bridge. The island between the north and south entrances is very low and may not block oil at extreme high tides. May be able to deploy from land. Area is shallow and becomes a mudflat at low tide.	Stage at private property at foot bridge, at Camp Kirby, or at Bayview State Park.	By boat from the Larrabee State Park ramp or from Anacortes; vehicle access from I-5 exit 236, go west on Bow Hill Road to Bayview-Edison Road, to Samish Island Road, to private drive at south end of Alice Bay.	Marsh, salmonids, waterfowl.

4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-48	New strategy 5/01	Alice Bay (North Entrance) SKA0257 48°-34.045'N 122°-29.515'W	Exclusion - Keep oil out of Alice Bay.	900'	Deploy boom across the north entrance from the south shoreline on Scotts Point. The island between the north and south entrances is very low and may not block oil at extreme high tides. Area is shallow and becomes a mudflat at low tide.	Stage along road to Scotts Point, at Camp Kirby, or at Bayview State Park.	By boat from the Larrabee State Park ramp or from Anacortes; vehicle access from I-5 exit 236, go west on Bow Hill Road to Bayview-Edison Road, to Samish Island Road, to road to Scots Point; access through private property. May need helicopter support.	Marsh, salmonids, waterfowl.
NPS-49	Field tested 5/98	William Point (200' South of Light) SKA0276 48°-34.955'N 122°-33.650'W	Deflection/Collection - Deflect oil out into open water or collect to prevent oil from moving north into Samish Bay.	1000'	Deploy boom from gravel beach south of light at an angle to deflect the oil into deeper water, or at an angle to collect oil with a skimmer at the end of the boom. Current can be strong in this area, and boom should be tended.	Stage at Camp Kirby or Bayview State Park.	By boat from the Larrabee State Park ramp or from Anacortes; no vehicle access.	Samish Bay resources.

4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-50	New strategy 5/01	Camp Kirby SKA0278 48°-34.455'N 122°-33.490'W	Collection - Prevent oil from moving up beach from the south.	1000'	Deploy boom from end of spit at Camp Kirby to enhance natural collection area.	Stage at Camp Kirby.	By boat from Anacortes; vehicle access from I-5 exit 236, go west on Bow Hill Road to Bayview-Edison Road, to Samish Island Road and follow to camp, vac truck access to beach at camp. Call the camp at 360-766-6060 for access.	Protect resources to the north, Samish Bay.
NPS-51	Field visit 3/98	Pocket Marsh North of Joe Leary Slough (eastern shore of Padilla Bay) SKA0299 48°-32.185'N 122°-29.295'W	Exclusion - Keep oil out of marsh.	1200'	Deploy boom to close off pocket marshes. Pilings in front of marshes can be used to help anchor the boom. Area is shallow and becomes a mudflat at low tide.	Stage at Bayview State Park.	By boat from Anacortes, you need a 7' plus tide to reach the area. No vehicle access. May need helicopter support.	Salt marsh, waterfowl habitat, shorebirds.

4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-52	Field visit 3/98	Joe Leary Slough SKA0306 48°-31.185'N 122°-29.100'W	Exclusion/ Collection - Keep oil out of marsh, Collect if feasible.	1600'	Deploy boom in a chevron configuration with point of apex facing west. Area is shallow and becomes a mudflat at low tide.	Stage at Bayview State Park.	By boat from Anacortes, you need a 7' plus tide to reach the area. There is road access on the south side of the slough through a private orchard (contact Merritt's Apples 360-766-6224 for access). From I-5 exit 236, go west on Bow Hill Road to Bayview-Edison Road to site. May need helicopter support.	Salt marsh, waterfowl habitat and sand lance larvae.
NPS-53	Field visit 3/98	Oswald's salt marsh SKA0310 48°-30.580'N 122°-29.115'W	Exclusion - Protect salt marsh behind crumbling pilings.	800'	Deploy boom to close off gaps between pilings in front of Oswald's salt marsh. Area is shallow and becomes a mudflat at low tide.	Stage at Bayview State Park, or along Bayview- Edison Road.	By boat from Anacortes, you need a 7' plus tide to reach the area. Vehicle access from Bayview-Edison Road; from I-5 exit 236, go west on Bow Hill Road to Bayview- Edison Road to site. May need helicopter support.	Salt marsh, waterfowl habitat, shorebirds, oysters, Sand Lance larvae and State Park.

4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-54	Field visit 3/98	Sullivan Minor salt marsh SKA0312 48°-30.205'N 122°-29.045'W	Exclusion - Keep oil out of salt marsh.	2800'	Deploy boom along the length of the Sullivan Minor salt marsh, from Oswald's marsh to Persons Road. Area is shallow and becomes a mudflat at low tide.	Stage at Bayview State Park, or along Bayview- Edison Road.	By boat from Anacortes, you need a 7' plus tide to reach the area. Vehicle access from Bayview-Edison Road; from I-5 exit 236, go west on Bow Hill Road to Bayview- Edison Road to site. May need helicopter support.	Salt marsh, waterfowl habitat, shorebirds, oysters, Sand Lance larvae and State Park.
NPS-55	Field visit 3/98	Indian Slough (southern end of Padilla Bay) SKA0331 48°-28.065'N 122°-28.720'W	Exclusion - Keep oil out of slough.	1600'	Deploy boom in a chevron configuration with apex pointing north. Deploy 400' for the west leg from the west side of the slough entrance directly north to the east end of Dike Island and to the apex anchor point in the main channel, which will also block the eastern opening between Dike Island and the mainland. Deploy 1200' for the east leg from the east side of the slough entrance to the apex. Area is shallow and becomes a mudflat at low tide.	Stage at the Swinomish Channel boat ramp parking lot (under Highway 20).	By boat from the Swinomish Channel ramp. Potential vehicle access from the Padilla Bay bike trail on the east side of the slough, contact the Padilla Bay Reserve at 360-428-1558 for access. May need helicopter support.	Salt marsh habitat, harbor seals, waterfowl and shorebird concentrations.
NPS-56		West end of Dike Island SKA0334 48°-27.805'N 122°-29.475'W	Exclusion - Keep oil out of area behind Dike Island.	500'	Deploy boom across western opening between Dike Island and the mainland. Area is shallow and becomes a mudflat at low tide.	Stage at the Swinomish Channel boat ramp parking lot (under Highway 20).	By boat from the Swinomish Channel ramp. No vehicle access. May need helicopter support.	Salt marsh habitat, harbor seals, waterfowl and shorebird concentrations.

4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-57	Field visit 3/98	Telegraph Slough (southern end of Padilla Bay) SKA0335 48°-27.685'N 122°-29.670'W	Exclusion - Keep oil out of slough.	2600'	Deploy two 1300' legs of boom to form a chevron with the apex facing northwest. Area is shallow and becomes a mudflat at low tide.	Stage at the Swinomish Channel boat ramp parking lot (under Highway 20).	By boat from the Swinomish Channel ramp. No vehicle access. May need helicopter support.	Salt marsh habitat, harbor seals, waterfowl and shorebird concentrations.
NPS-58	Field visit 3/98	Swinomish Channel (under Highway 20 bridge) SKA0592 48°-27.320'N 122°-30.830'W	Deflection/ Collection - Keep oil from moving into the Swinomish Channel.	2000'	Deploy two 500' booms on each side of the channel between the railroad trestle and the Highway 20 bridge to deflect the oil moving into the channel to collection sites along the shoreline.	Stage at the Swinomish Channel boat ramp parking lot (under Highway 20).	By boat from the Swinomish Channel ramp. Vehicle access from I-5 to Highway 20, go west to the boat ramp on the east side of the channel. Vac truck access on both sides of the channel.	Wetland habitat; waterfowl and shorebirds.
NPS-60	New strategy 5/01	Whitemarsh Junction SKA0350 48°-27.695'N 122°-31.380'W	Exclusion - Keep oil out of the marsh.	200'	Deploy boom in chevron configuration in front of gap in railroad trestle to lagoon. Anchor to railroad trestle. Flow through gap may be significant during tidal exchanges. Will need a small workboat to set the anchor at the apex of the chevron.	Stage at the Swinomish Channel boat ramp parking lot (under Highway 20).	By boat from the Swinomish Channel ramp. Vehicle access from I-5 to Highway 20, go west and exit at the Swinomish Casino, follow the dirt road along the railroad tracks on the east side of the trestle.	Wetland habitat; waterfowl and shorebirds.

4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-61	Field visit 3/98	Northeast Shoreline of March Point SKA0362 48°-29.715'N 122°-33.280'W	Exclusion - Keep oil off nearshore area and beach.	3000'	Starting at the boat ramp on the NE corner of March Point, deploy the boom along the shoreline 100-300 feet off the beach in a southerly direction, and bring the south end back in and anchor on the beach. Add boom as it becomes available and time allows (priority will depend on the trajectory) to protect as much beach as possible down to North Texas Road.	Stage at the boat ramp on March Point Road or at the Swinomish Channel boat ramp parking lot (under Highway 20).	By boat from the Swinomish Channel ramp, or from Anacortes. Vehicle access from March Point Road. Most of the beach becomes exposed at low tide, may need helicopter support.	Smelt spawning, herring, sand lance spawning, waterfowl, clam beds and shorebirds.
NPS-62		March Point SKA0363 48°-30.025'N 122°-33.470'W	Deflection/ Collection - Prevent oil from moving around March Point to the east and south.	1000'	Deploy boom at an angle from the tip of March Point to collect oil moving along the beach from the west. Extend boom to 1500' if it will improve collection efficiency and the currents allow it.	Stage at the boat ramp on March Point Road or at the Swinomish Channel boat ramp parking lot (under Highway 20).	By boat from the Swinomish Channel ramp, or from Anacortes. Vehicle access on March Point Road.	Smelt spawning, herring, sand lance spawning, waterfowl, clam beds and shorebirds.
NPS-63	Field visit 8/03	Tidal Lagoon North of Crandall Spit SKA0370 48°-29.630'N 122°-34.655'W	Exclusion - Keep oil out of tidal lagoon.	200'	Deploy boom across the entrance to the lagoon on the north shore of Crandall Spit. Can be deployed from land.	Stage along March Point Road.	By boat from Anacortes. Vehicle access on March Point Road.	Wetland habitat; waterfowl and shorebirds.
NPS-64	Field tested 8/03	Crandall Spit SKA0371 48°-29.305'N 122°-34.835'W	Exclusion - Keep oil out of cove south and east of Crandall Spit.	1200'	Deploy boom across cove between the Shell recreation area and Crandall Spit. Pilings on each side of the cove can be used as anchor points. Cove becomes a mudflat at low tide.	Stage along March Point Road or at the Equilon recreation area.	By boat from Anacortes. Vehicle access on March Point Road.	Herring and smelt spawning, dungeness crab, sand lance larvae.

4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-65	Field visit 8/95	Causeway Across Fidalgo Bay SKA0374 48°-28.835'N 122°-34.680'W	Exclusion - Prevent oil from entering south Fidalgo Bay.	2200'	Deploy boom in a chevron configuration across the causeway opening . Anchor to the Railroad trestle.	Stage along March Point Road or at the Equilon recreation area.	By boat from Anacortes. Vehicle access on March Point Road.	Seagrass, saltmarsh, smelt, herring, clams, crab, waterfowl, shorebirds, harbor seals.
NPS-66	Field visit 8/95	Weaverling Spit SKA0388 48°-28.980'N 122°-35.045'W	Exclusion - Protect shoreline habitat on Weaverling Spit.	4000'	Deploy boom in a chevron configuration with a 1000' leg from the railroad causeway to the tip of Weaverling Spit, and a 3000' leg from the tip of the spit to the beach near Highway 20.	Stage from R/V Park on Weaverling Spit.	By boat from Anacortes. Vehicle access from Fidalgo Bay Road. From Highway 20, turn right onto Fidalgo Bay Road near the southwest end of Fidalgo Bay.	Herring & smelt spawning, sand lance larvae, hard shell clams, waterfowl & shorebird concentrations, seal haulouts.
NPS-67	New strategy 5/01	Cap Sante Park SKA0402 48°-30.800'N 122°-36.125'W	Collection - Keep oil from moving north into Guemes Channel.	1000'	Deploy boom at an angle from the beach at the picnic area in Cap Sante Park.	Stage from the Cap Sante Marina parking lot.	By boat from Anacortes. Potential vehicle access to picnic area on a pedestrian path. From Highway 20 in Anacortes, continue north on Commercial Avenue to 4th Street, turn right to "T" Avenue and right again to the park.	Fidalgo Bay and Guemes Channel resources.

4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-68	New strategy 8/01	Long Bay (Southeast corner of Guemes Island) SKA0068 48°-32.095N 122°-34.545'W	Exclusion - Keep oil out of the bay.	1000'	Deploy boom across the bay from the rocky point on the south side of the bay, to the beach to the northwest.	Stage from from Anacortes or Bellingham.	By boat from Anacortes or Bellingham.	Cultural/ archeological site.
NPS-69		Pocket Beach on North Side of Fidalgo Island SKA0410 48°-31.255'N 122°-36.965'W	Exclusion - Keep oil off of the pocket beach.	500'	Deploy boom along shore from the north end of "M" Avenue to "O" Avenue.	Stage at the north end of "N" or "M" Avenue.	By boat from Anacortes. Vehicle access from "N" or "M" Avenue. From Highway 20 in Anacortes, continue north on Commercial Avenue to 4th Street, turn left and go one block to "O" Avenue.	Surf smelt spawning habitat.
NPS-70		Pocket Beach on North Side of Fidalgo Island SKA0412 48°-31.100'N 122°-37.480'W	Exclusion - Keep oil off of the pocket beach.	500'	Deploy boom along shore from the north end of "H" Avenue to "I" Avenue at the ferry terminal (Guemes Island ferry).	Stage at the ferry terminal on "I" Avenue.	By boat from Anacortes. Vehicle access from "I" Avenue at the ferry terminal.	Surf smelt spawning habitat.

4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-71		Ship Harbor SKA0420 48°-30.345'N 122°-40.465'W	Exclusion - Keep oil out of Ship Harbor.	3600'	Deploy boom from pilings at the ferry terminal to where road comes down to shore southeast of the terminal. Run boom along outside piling line. Keep boom outside mudflats so it does not dry out at low tide. Anchor offshore, not to pilings.	Stage at Washington Park.	By boat from Washington Park or Anacortes. Vehicle access to the ferry terminal and to the beach on a road southeast of the terminal, from I-5 to Highway 20 west, follow signs to the ferry terminal.	Sand lance and surf smelt spawning habitat. Large concentration of dungeness crabs, eelgrass beds, waterfowl, shorebirds, and sea urchins.
NPS-72	Field visit 6/99	Shannon Point Research Lab SKA0424 48°-30.560'N 122°-41.070'W	Exclusion - Protect seawater intake to lab and shoreline sites.	1200'	Deploy 200' of boom from shore to the Shannon Point daymarker, another 200' of boom from shore to the "submerged crib" (on chart), and 800' of boom parallel to shore to connect the two 200' legs (from the daymarker to the submerged crib).	Stage at Washington Park.	By boat from Washington Park or Anacortes. Vehicle access to the lab from I-5 to Highway 20 west (follow signs to ferry), turn left onto Sunset Avenue and right onto Shannon Point Road.	Marine laboratory sea water intake, seabirds, and shoreline habitat.
NPS-73	New strategy 5/01	Sunset Beach SKA0427 48°-30.085'N 122°-41.555'W	Exclusion - Keep oil off of Sunset Beach.	1100'	Deploy boom from the rocks at each end of the gravel beach in Washington Park (at the boat ramp).	Stage at Washington Park.	By boat from Washington Park or Anacortes. Vehicle access to the park from I-5 to Highway 20 west (follow signs to ferry), turn left onto Sunset Avenue to park entrance.	Surf smelt spawning habitat.

4.3.2.2 Proposed Booming and Collection Strategies: Matrices - NORTH PUGET SOUND								
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
NPS-74		Burrows Pass SKA0435 48°-29.540'N 122°-41.275'W	Diversion/ Collection - Prevent oil from moving into Burrows Bay.	1000'	Deploy boom at an angle out from the cove west of Flounder Bay in Burrows Pass to collect oil moving along the shore from the west. The current in Burrows Pass can be very strong and may require less boom to be deployed at a sharper angle.	Stage at the Skyline Marina or Washington Park.	By boat from the Skyline Marina or the Washington Park ramp. Vehicle access from I-5 to Highway 20 west (follow signs to ferry), turn left onto Sunset Avenue and left again onto Skyline Way, then turn right onto Hughes Lane to the cove.	Sea urchins, abalone, Burrows Bay resources.
NPS-75	Field visit 8/01	Secret Harbor (Southeast Side of Cypress Island) SKA0164 48°-33.350'N 122°-41.360'W	Exclusion - Keep oil out of the harbor.	1000'	Deploy boom across the narrowest part of the entrance to the harbor, from the rocky point on the south side of the harbor, directly north to the north shore. Attach boom to the shore or trees, and anchor to maintain position.	Stage from from Anacortes or Bellingham.	By boat from Anacortes or Bellingham.	Feeding habitat for marbled murrelets, eelgrass beds.
NPS-76	Field visit 8/01	Eagle Harbor (Northeast Side of Cypress Island) SKA0185 48°-35.360'N 122°-41.835'W	Exclusion - Keep oil out of the harbor.	1300'	Deploy boom from the ramp on the west shoreline. No attachment point is available at the east bluff; anchor the boom in as near as possible to the bluff.	Stage from from Anacortes or Bellingham.	By boat from Anacortes or Bellingham.	Feeding habitat for marbled murrelets, eelgrass beds.